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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,413	09/23/2004	Aweke Negash Lemma	NL 020242	8118
24737 7590 10/31/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER SIMITOSKI, MICHAEL J				
ART UNIT 2434		PAPER NUMBER		
MAIL DATE 10/31/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,413

Applicant(s)

LEMMA ET AL.

Examiner

MICHAEL J. SIMITOSKI

Art Unit

2434

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,9-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,9-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The response of 7/15/08 was received and considered.
2. Claims 1-3, 5-7, 9-15 & 17-20 are pending.
3. Applicant's response filed with respect to claims 1-3, 5-7, 9-15 & 17-20 has been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made under 35 U.S.C. §101, regarding claim 1. Since this rejection is not necessitated by Applicant's amendments, this action is made NON-FINAL.
4. It is noted that multiple attempts to contact Applicant's representatives, Brian S. Meyers and Larry Liberchuk were unsuccessful.

Specification

5. The amendment to the specification is accepted.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-3, 5-7 & 9-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
 - a. Regarding claim 1, the claim is to a method with the steps of dividing, forming values derived from a frame and "taking" sequences of values. However, none of these steps produces a useful, concrete and tangible result. Specifically, the "forming" of

sequences of values “derived from” sub-frames produces a result, but it is just the rearrangement of data. Further, since the “taking” doesn’t appear to require any further action, the resulting values are not useful, concrete and tangible. Therefore, the claim does not meet the statutory requirement under 35 U.S.C. §101. It is believed the “concrete and tangible” requirement could be corrected by including a limitation such as “including storing said Nb sequences of values” after “symbols” (line 10). Further, the specification on pp. 10-11 discusses an energy function corresponding to the compensation for offset, set forth on pp. 13-14. Since the “taking” limitation does not appear to produce a value, amending the claim to specify that the taking includes an algorithm or calculation that results in the estimates would meet the “useful” requirement. As specified above, this rejection is not necessitated by Applicant’s amendments, this action is made non-final.

b. Claims 2-3, 5-7 and 9-10 are rejected under similar rationale.

8. It is noted that claims 11-14 meet the requirement under 35 U.S.C. §101 as the step includes processing, which leads to a determination.

9. It is further noted that, regarding claim 15, while the “computer readable medium” could be considered a transmission medium, the language “having stored thereon” is interpreted such that the medium is required to be a storage medium and hence the claimed medium falls within one of the statutory classes of invention specified under 35 U.S.C. §101.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 15 & 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- c. Regarding claim 15, the claim uses the language “computer executable code”, which is not recited in the specification.
- d. Regarding claim 17, the claim is rejected based on its dependence upon claim 15.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- e. Regarding claim 17, the claim recites “a computer program as claimed in claim 15”. However, since claim 15 has been amended to comprise “a computer readable medium” (which as described above is understood to be a storage medium based on claim 15's language “stored thereon”), this limitation lacks sufficient antecedent basis.
- f. Regarding claim 17, the claim recites “downloading a computer program as claimed in claim 15”. However, claim 15 has been amended to comprise “a computer readable medium” (which as described above is understood to be a storage medium based

on claim 15's language "stored thereon"), and thus it is unclear how a storage medium can be "downloaded".

Allowable Subject Matter

14. Claims 18-20 are allowed.
15. Claims 1-3, 5-7, 9-15 & 17 are believed to overcome the prior art of record.
16. The following is a statement of reasons for the indication of allowable subject matter:
 - g. Regarding claims 18 & 20, the limitations in the claims are not found in the prior art. The prior art of record has been discussed in the previous actions. Further, any additional art is cited and discussed in the "Conclusion" section of this action. However, the prior art of record fails to teach or disclose, either alone or in combination, dividing the received signal into frames, dividing each frame into a plurality of Nb sub-frames, wherein each sub-frame overlaps an adjacent sub-frame, forming Nb sequences of values derived from the corresponding sub-frame within each frame and taking said Nb sequences of values as successive estimates of a frame sequence corrected aligned to the sequence of symbols, in combination with the other elements of the claims and as described in the specification at pp. 10-14. It is noted that the "taking" of estimates is understood to include a calculation of an estimate value based on the corresponding sub-frame, as described in the specification.
 - h. Claim 19 is allowed based on its dependence upon claim 19.
 - i. Claim 1 is believed to be allowable if the above rejections of claim 1 are overcome.

- j. Claims 2-3, 5-7 & 9-14 are believed to be allowable if the above rejections of claim 1 are overcome as the claims depend upon claim 1.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- k. The Bassia et al. reference is cited for teaching calculating correlation values for all possible shifts of an input, for the purpose of synchronization.
- l. The Tachibana et al. reference is cited for teaching an embedding function that embeds using overlapping frames.
- m. The Matsui et al. reference is cited for teaching extracting watermarks based on frames.
- n. The Kirovski et al. references are cited for teaching generating correlation values for a full watermark length based on various starting points, where at least some of the frames overlap.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. SIMITOSKI whose telephone number is (571)272-3841. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 20, 2008
/Michael J Simitoski/
Primary Examiner, Art Unit 2434